

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

April 16, 2012

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

HAI Project No. 2708
DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Gasco Property, 7900 NW St. Helens Avenue, Portland, Oregon

Dear Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural that have occurred relating to the Gasco property during the month of March 2012. NW Natural is completing upland investigatory activities at the subject property under the Voluntary Agreement No. ECVV-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

During March there was extensive written and verbal communication between Anchor QEA staff, Siltronic staff, DEQ and EPA regarding the design and installation of source control extraction wells, monitoring wells, and piezometers.

In e-mail correspondence dated March 2, 2012 (Dana Bayuk to Ben Hung), DEQ transmitted a Memorandum (Jennifer Peterson to Gasco File) documenting DEQ's approach for developing a site-specific dibenzofuran screening level value (SLV) for use in the upland ecological risk assessment.

On March 5 Anchor QEA staff met with City of Portland staff to discuss future source control activities, greenway review, and permitting.

In correspondence dated March 6, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, submitted the *Third and Fourth Quarter 2012 Environmental Monitoring Report, NW Natural Gasco Facility*, dated March 5, 2012.

In correspondence dated March 8, 2012, Anchor QEA, LLC (Anchor QEA), on behalf of NW Natural, submitted a revised *Field Sampling Plan for TPH Fraction Data Gap Sampling*, dated March 2012.

In e-mail correspondence dated March 9, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided notification to DEQ of pending field activities related to the first quarter 2012 routine groundwater monitoring event.

In correspondence dated March 9, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided DEQ with proposed revisions to the routine groundwater monitoring program as conducted by NW Natural at the Gasco and Siltronic properties.

The standing Gasco Site Technical meeting scheduled for Monday March 19, 2012 was rescheduled to Wednesday March 21, 2012 per DEQ request. The NW Natural, DEQ, and EPA technical teams met to discuss document reviews, schedules, and source control implementation coordination.

In correspondence dated March 22, 2012 (Taku Fuji to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted to DEQ the document *Work Plan, Human Health and Ecological Risk Assessment, NW Natural Gasco Site*, dated March 2012.

In a telephone conversation dated March 23, 2012 (Dana Bayuk to Ben Uhl), DEQ approved proposed modifications to the routine groundwater monitoring program as related to cyanide, but could not yet comment on other proposed changes as they are still under review.

In correspondence dated March 29, 2012 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, submitted a Field Sampling Plan related to Doane Creek soil and sediment sampling to DEQ as part of NW Natural's supplemental RI activities at the Siltronic property.

2.0 Field Work

Field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during March. The system recovered approximately 53 gallons of fluids (primarily DNAPL) during March. No DNAPL was manually removed from well PW-01-80 during March.

Discharge of treated water (groundwater from the LNG containment basin) to the City of Portland sanitary sewer was initiated on March 16, 2007 under Temporary Wastewater Discharge Permit 500.022 (expires February 15, 2012). Results of NW Natural's effluent sampling are provided to BES in Discharge Monitoring Reports that are submitted for any month that effluent sampling occurs – which is at least every other month in accordance with the permit. As of March 29, 2012 a total of 3,244,848 gallons of treated water have been discharged to the sanitary sewer in 2012.

For source control design several borings were completed to obtain soil samples for grain size testing. The grain size data were used for extraction well design. Observation wells and piezometers were installed for the purpose of monitoring source control activities.

The First Quarter 2012 routine groundwater monitoring event was initiated in March with groundwater level measurements collected at the NW Natural and Siltronic properties on March 19, 2012. Groundwater sample collection activities commenced on March 27 and continued through the remainder of the month and into April.

3.0 Anticipated Activities in April and May 2012

Upper alluvium extraction wells PW-2U, 3U, 5U, and 6U will be installed during April. Step drawdown tests will be completed at these four extraction wells.

TarGOST borings will be completed in April adjacent to the locations of extraction wells PW-2, PW-3, PW-5, PW-14, and PW-6.

NW Natural and DEQ technical working group meetings are anticipated to occur during April and May 2012, as needed, so that discussion of critical items related to upland risk assessment and groundwater source control tasks may be conducted.

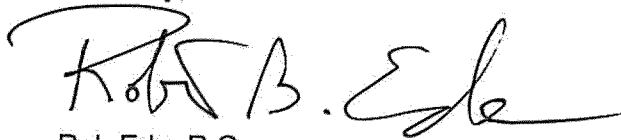
The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, these reports and work plans have not received DEQ review and comment.

- *Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site*, February 19, 2009, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind reviews for Segments 1 and 2 Source Control Design documents and upland Risk Assessment-related reviews.
- *Final Stormwater Source Control Data Summary Report*, September 2010, Anchor QEA. Based on DEQ feedback, DEQ review of this document is prioritized behind reviews for Segments 1 and 2 Source Control Design documents and upland Risk Assessment-related reviews.
- *Remedial Investigation Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property*, March 31, 2011, HAI. Based on DEQ feedback, it is understood that DEQ review is being conducted at this time.
- *Draft Revised Groundwater Source Control Construction Design Report (CDR)*, January 31, 2012, Anchor QEA. Along with the CDR three other documents were submitted to DEQ. As of April 13, comments have been received from DEQ on elements of the CDR, but not on the entire report.
 - *Wastewater Treatment Final Design Report*(Sevenson, 2012) – DEQ and EPA comments received April 5, 2012.
 - *Upper Alluvium Extraction Well Design Work Plan* (Anchor QEA, 2012). As of April 13, comments have been received from DEQ on elements of this work plan, but not on the entire work plan.
 - *Work Plan to Assess Baseline Groundwater Conditions* (Anchor QEA, 2012). As of April 13, comments have been received from DEQ on elements of this work plan, but not on the entire work plan.
- *Field Sampling Plan (FSP) for TPH Fraction Data Gap Sampling*, March 8, 2012, Anchor QEA. Comments on the FSP were received from DEQ on April 10.
- *Proposed Revisions to the Routine Groundwater Monitoring NW Natural – Gasco Facility*, dated March 9, 2011 (HAI, 2012). As of April 13, DEQ approval of modifications regarding cyanide testing has been received, but remaining proposed modifications remain under review.

- *Work Plan, Human Health and Ecological Risk Assessment, NW Natural Gasco Site, March 2012 (Anchor QEA, 2012).*
- *Supplemental Remedial Investigation Field Sampling Activities, Doane Creek Embankment Soil and Sediment, Siltronic Corporation Property, dated March 29, 2012 (HAI, 2012).*

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

robe@hahnenv.com

- c:
- Ms. Sandra Hart, NW Natural (electronic only)
 - Mr. Bob Wyatt, NW Natural (electronic only)
 - Ms. Patty Dost, Pearl Legal Group PC (electronic only)
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 - Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
 - Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
 - Mr. Henning Larsen, DEQ NW Region (electronic only)
 - Mr. Tom Gainer, DEQ NW Region (electronic only)
 - Mr. Tom McCue, Siltronic Corporation (electronic only)
 - Ms. Kristine Koch, Region 10 EPA (electronic only)
 - Mr. Sean Sheldrake, Region 10 EPA (electronic only)
 - Mr. Rene Fuentes, Region 10 EPA (electronic only)
 - Mr. Chip Humphrey, Region 10 EPA (electronic only)
 - Mr. Lance Peterson, CDM, Inc. (electronic only)